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DRDF Dairy and Rural Development Foundation

# DAIRY PROJECT

## QUARTERLY PROGRESS REPORT

October – December 2015


Cover page designed by Abdullah Khan

## Input:

Over ***1,559*** dairy trainings and awareness classes provided to farmers and extension service providers from rural areas

***8,622*** rural extension service providers were awarded with start-up kits

***1,715*** motorbikes awarded to AITs for larger geographical coverage

## Output:

Over ***46,392*** trained beneficiaries contribute towards an efficient dairy sector

***72*** farms upgraded with more than ***PKR 37 million (USD 0.36M)*** investment coming from farmers

Photo by: Dairy Project

## Outcome:

***19.9%*** increase in milk yield of dairy animals

***94%*** of the trained farmers adopting more than three best practices for dairy farming

More than ***8,000*** young unemployed men and women established their own business

## Impact:

Increase in productivity of the dairy sector

AITs and WLEWs earn on average ***PKR 10,500 (USD 102)*** and ***PKR 1,155 (USD 11)*** per month, respectively.

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# List of Acronyms

| | |
|---|---|
| **AI** | Artificial Insemination |
| **AITs** | Artificial Insemination Technicians |
| **AOR** | Agreement Officer's Representative |
| **BOG** | Board of Governors |
| **BRSP** | Balochistan Rural Support Program |
| **CMA** | Cumulative Moving Average |
| **DRDF** | Dairy and Rural Development Foundation |
| **EMPP** | Environmental Monitoring Program Plan |
| **FOM** | Field Operations Manager |
| **FROS** | Female reproductive organs |
| **GM** | General Manager |
| **LBEs** | Livestock Business Entrepreneurs |
| **LHW** | Livestock Health Worker |
| **M&E** | Monitoring and Evaluation |
| **MSI** | Management Systems International |
| **MTs** | Master Trainers |
| **NGO** | Non-Governmental Organization |
| **PD** | Project Director |
| **PMU** | Project Management Unit |
| **RFP** | Request for Proposal |
| **SMs** | Social Mobilizers |
| **TOR** | Terms of Reference |
| **TOTs** | Training of Trainers |
| **UAF** | University of Agriculture Faisalabad |
| **US** | United States |
| **USAID** | United States Agency for International Development |
| **UVAS** | University of Veterinary & Animal Sciences |
| **VTIs** | Vocational Training Institutes |
| **WLEWs** | Women Livestock Extension Workers |

# Executive Summary

The Dairy Project is a five year intervention. It is a joint effort of the United States Agency for International Development (USAID) and Dairy and Rural Development Foundation (DRDF) to enhance rural incomes by increasing livestock productivity. In the first three years, the project focused on farmer training and adoption of best dairy farming practices. Simultaneously, the project also trained young rural men and women from these farming communities and established them as extension services providers for dairy farmers..

During the extension phase, the focus shifted to the upgradation of local farms as viable commercial units which not only serve as a model for the surrounding community, but also provide a platform to link the project-trained Artificial Insemination Technicians (AITs) and Women Livestock Extension Workers (WLEWs), suppliers, farmers and other stakeholders of the dairy industry. It ensures the sustainability of the project-trained beneficiaries even after the project ends.

As of December 30, 2015, the project has trained **37,770** dairy farmers, including **518** farm managers and commercial dairy farmers, in best dairy farm practices to help them increase milk productivity which will eventually lead to an increase in their income. In this quarter, the project trained a total of **6,759** farmers. Our quarterly survey data shows an increase in milk yield per animal of the project trained beneficiaries by **19.9%**. One-day training took place on upgraded farms and a total of **72** farms have been upgraded up till now. After upgradation these farms are handed over to the project team of veterinarians who work closely with these farms and provide their advisory services to increase the farm efficiency through proper herd management. For this the **3:1:7** strategy (305 lactation days, 70% cows in milk and one new calf per year) is the rule of thumb which is followed.

Breeding is one of the important pillars in best dairy farming practices. The project has trained **2,230** AITs till December, 2015. In this quarter, **84** AITs were enrolled through a set selection process duly monitored by the Monitoring and Evaluation (M&E) Department. From these 84 candidates **62** completed their six month training and were examined and certified as AITs by the University of Veterinary and Animal Sciences (UVAS). The successful candidates were awarded start-up kits and will be given motorbikes as well. So far, a total of **1,715** bike have been distributed among all the qualified AITs (till December, 2015).

Women play a vital role in the informal dairy sector. The project made an effort to recognize the role of women in the dairy sector by formally training them and establishing them as independent extension services providers. The project has trained **5,669** WLEWs and also provided **723** trained WLEWs with refresher courses. These WLEWs are providing services to more than 4,000 neighboring villages. On one hand, they provide a crucial service to dairy farmers, while on the other hand, they are breaking down the social barriers prevalent in the rural society regarding female work. According to a third party survey, these women earn on average **PKR. 1,155 (USD 11)** per month. In this respect, the project is in discussion with other USAID-funded projects to add more business lines to enhance the incomes of WLEWs.

The Dairy Project continued to raise awareness on best dairy farming practices among the masses. For this purpose, the project used the most popular medium of street theatre shows to tell farmers about the farming practices and their resultant outcomes. The project ran its mass awareness mobile float campaign with the name **"*Dairy Laway Khushian the Dheri*" (*Dairy brings happiness to your life*)**. In this quarter, a total of **37** street theatre shows were conducted in the vicinity of upgraded farms in Vehari and Bahawalpur zones. This activity not only helped spread awareness on dairy farming in rural traditional farmers, but also increased the mobilization for one-day training. A total of **18,128** farmers participated in these shows.

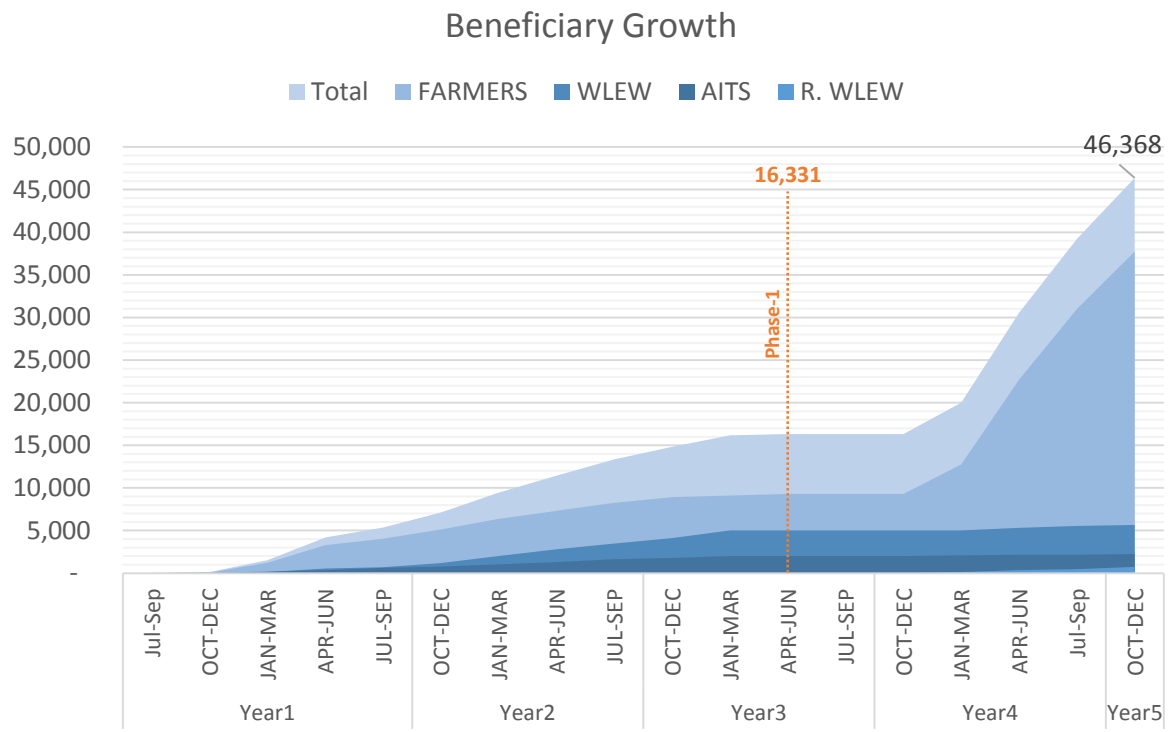



Figure 1 Quarterly Growth in the Number of Trained Beneficiaries

Photo by: Dairy Project

Financials

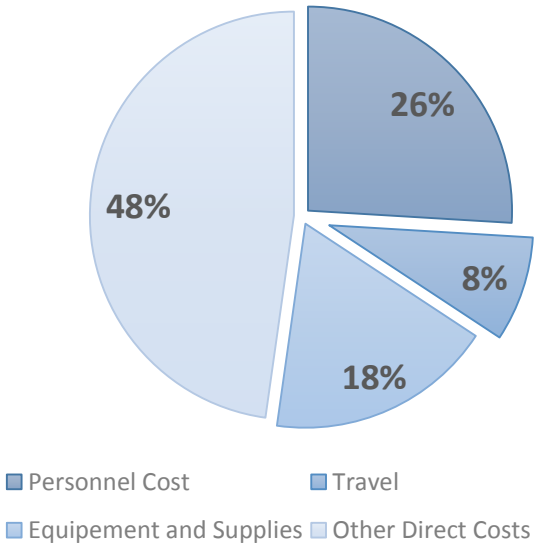
# Aid for Sustainable Development

Table 1: Financial Summary

| Description | Amount (In USD) |
|---|---|
| Total Estimated USAID Amount: | 21,018,293 |
| Amount Obligated: | 20,918,293 |
| Leverage Amount (Non-Federal): | 5,108,059 |
| Total Project Funds Expended To Date (End of December-2015): | 17,907,694 |
| Project Funds Expended During the Reporting Quarter (Oct-Dec 2015): | 926,762 |
| Obligated Project Funds Available: | 3,010,599 |
| Project Funds Allocated for the Next Quarter (Jan-Mar, 2016): | 1,033,000 |

Table 2: Expenditure Summary

| Expense Categories Under Cooperative Agreement | Expenditure during Oct-Dec 2015 (US $) |
|---|---|
| Personnel Cost | 240,547 |
| Travel | 77,069 |
| Equipment and Supplies | 166,455 |
| Other Direct Costs | 442,692 |
| **Total** | 926,763 |



***"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."***

*— R. Buckminster Fuller*

Farm before Upgradation

Farm after Upgradation

Photo by: Dairy Project

Progress & Performance

# Marching Forward

Due to the vital importance of the livestock sector in Pakistan, the Dairy Project, with its extensive training programs for dairy farmers, Women Livestock Extension Workers (WLEWs) and Artificial Insemination Technicians (AITs), is playing an important role in transforming livelihoods of rural communities associated with livestock. The project is working with an integrated approach where it is providing training to farmers on best dairy farming practices through upgraded model farms established in their own vicinities, and then by filling the gap of extension services in the dairy and livestock sector through increasing the number of trained AITs and WLEWs in the pool of service providers. With this approach, the project is marching forward to achieve the set targets.

This progress report describes the operations and progress of the project in the period October 2015 to December 2015. For a detailed overview of the project activities, please refer to Annex 1.

## Farm Upgradation and Bio gas plants

### Upgraded Village Level Model Farms

The project aims to facilitate 100 small dairy farmers in different village centers, on a cost-share basis, to upgrade their existing small farms to model farms at village level. The upgraded farms will facilitate farmers in implementing best dairy farming practices, and will further serve as a model for neighboring dairy farmers. By following the selection process, the project has selected a total of 103 farms for upgradation out of which 16 were selected in the current reporting period. Construction/upgradation work of 72 has been completed and farms are open for one-day training.

Upgradation support is mainly categorized as construction/improvement of shed which involves civil-work and mechanization of farm by installing a cooling system, milking machine and silage machine. During the process of the farm upgradation, the project has provided/committed a total of **PKR 27,202,191** for 89 farms, while farmers contributed/committed a total of **PKR 37,479,411**[1]. This investment in upgradation would be the first step towards a viable commercial dairy farming for small dairy holders. The graph given below shows the overall status of farm upgradation.

Table 3: Upgradation Summary (December 2015)

| Upgradation Type | Total | Completed |
|---|---|---|
| Calf Pen | 1 | 1 |
| Calf Cadges | 1 | 1 |
| Sand Bunker | 2 | 1 |
| Fencing of Farm | 4 | 3 |
| Farm Soiling | 4 | 4 |
| Milking Machine | 13 | 13 |
| Shed Construction | 69 | 43 |
| Flooring | 1 | 0 |
| Silage Machine | 14 | 14 |
| Silage Bunker | 7 | 5 |
| Cooling System | 3 | 3 |
| **Grand Total** | **119** | **88** |

[1] The contribution of farmer is calculated on the basis of initial feasibility. The figure may increase with the completion of upgradation work.

In order to make these farms as a viable commercial unit the Dairy Project is providing constant follow-up through its trained staff. They provide advisory services on feeding, vaccination, fodder planning, breeding and animal selection on door step of these upgraded farms. The dairy project is also collecting complete data of farm economics which shows production cost with traditional practices is higher than standards. The farm upgradation team is working on economics of each farm and providing helpful solutions to decrease the cost.

The project has made a task force, divided into seven teams, having 10-15 upgraded farms to supervise. Data Specialist analyzed data and proposed the areas of improvement on each farm. The designated teams are working on implementation of 3:1:7 strategy at first stage.

Continuous advisory support on herd management, feeding and breeding will help the farmers reduce the cost of milk production, and, with the help artificial insemination, have high yielding animals. It will also help the farmers to run their farm as a viable commercial unit.

Photo by: Dairy Project

## Bio Gas

Instead of installing small 10 biogas units, the project is working in liaison with Livestock and Dairy Development Department, Punjab to build a state of the art bio-gas unit of 300 cubic meter capacity on its Bahadar-nagar farm. Along with this state of the art 300 cubic meter bio-gas unit, the project has completed the initial working of bio-gas unit installation of 100 cubic meter capacity from the selected applicants. All drawing work has been completed and the project is moving forward to start construction/civil work soon. The construction will start soon after the months of January and February since the cold weather can disrupt the construction work in open areas.

## Training and Support for Dairy Farmers

The project continued its farmer-training component as per work-plan. Overall status of the training till December 2015 is given below:

Table 4: Number of Farmers Trained and Training Type

| Type of Training | Farmers Trained |
|---|---|
| Two-Day Training | 5,118 |
| Four- Day Training | 3,749 |
| One Month Training | 518 |
| One-day Training | 27,044 |
| Seven-day Training | 1,341 |
| **Total** | **37,770** |

The project continued its one-day training on upgraded farms in both zones while 7-days trainings were conducted on the Sukheki Nestle Farm and upgraded farms in Bahawalpur and Vehari. A total of 6,759 farmers were trained in the current reporting period. To mobilize these farmers a total of 34 community/corner meetings were conducted by social mobilizers in both zones.

Table 5 Training Targets and Achievement (Oct-Dec, 2015)

| Type of Training | Targets | Achievement | Variance |
|---|---|---|---|
| One - Day Training | 7,200 | 6,397 | (803) |
| Seven - Day Training | 400 | 336 | (64) |
| One Month Training for commercial farmers and farm managers | 26 | 26 | 0 |
| **Total** | **7,626** | **6,759** | **(867)** |

Table 5 below shows the progress on indicators from the Monitoring and Evaluation Activity Plan. These indicators are calculated on the basis of survey conducted by M & E Department in January, 2016. For this purpose, a random sample of farmers trained in phase-2 (Year-4) was selected from the project intervention area (structured 7-day training).

Table 6 Performance Indicators for Project Trained Farmers

| Indicators | Targets | Achievement |
|---|---|---|
| Average increase in the project assisted household annual income from dairy activities relative to the baseline* | At least 10 percent increase in the household income from dairy activities. | Reported annually[1] |
| Percentage of project trained farmers access to extension services provided by project trained WLEWs | At least 20 percent of project trained farmers using WLEWs services | 48% |
| Percentage of farmers getting vaccination done, for FMD and HS, for their dairy animals | At least 40 percent of farmers | FMD - 96%<br>HS - 99% |

| Indicators | Targets | Achievement |
|---|---|---|
| Percentage increase in milk yield of dairy animals of trained farmers | At least 10 percent increase in milk yield. | 19.9%[2] |
| Percentage of project-assisted farmers using at least three level 1 best practices relative to the baseline | 60 percent farmers adopted three or more level 1 best practices | 94%[3] |
| Percentage of project-assisted farmers using at least three level 2 best practices relative to the baseline | 40 percent farmers adopted three or more level 2 best practices | |
| Number of villages reached with TV and/or Radio sketches | - | No radio/TV campaign was launched in this year |
| Number of project-assisted farmers managers trained in business practices, and book-keeping | 100 percent of Farm Managers | 100% |

Note: 1-As per EGA office memo, the dairy project will report this indicator annually.
2- The data is not adjusted for seasonality
3-Percentage of trained farmers adopting three or more than three best dairy farming practices

The project continued its silage activity even after the completion of last quarter's campaign. During this quarter, the project conducted two more silage campaigns covering 9.5 acres of land. About 210 farmers observed these silage campaigns. The project further also facilitated 39 farmers on individual basis for making silage by providing machinery and technical support. A total of 151.6 acres of land was covered in these individual supports.


Photo by: Dairy Project

## Training and Support for Artificial Insemination Technicians (AITs)

Pakistan is the 8th largest holder of cattle population with 0.18 cattle per person[2], however the average milk yield per animal (1,800 liter per lactation) is quite low as compared to the other countries. One of the reason of low milk yield is non-descriptive low yielding animals. The project is making an effort to train and equip the Artificial Inseminator who could provide insemination services with high quality semen on farmers' door step.

In the reporting period, the first batch of six months AI-training was completed. The AI training duration and curriculum was changed due to the government's new breeding policy. A total of 62 individuals completed six months training under batch 30 at Burj Attari and Bahawalpur, whereas the result of four AITs has been withheld by the examiner and they will be re-evaluated in January 2016. The six month training includes three month class room training and field survey and three month internship on large dairy farms where AITs assist or perform insemination on real life animals under the supervision of a farm manager/supervisor. On average, one AIT assisted/performed 126 AI cases during the three months field training. Along with the theoretical knowledge, AITs got an opportunity to improve their skills of performing insemination. After passing the final examination, conducted by the University of Veterinary and Animal Sciences, they received certificate and AI kit to kick start their business.

Moreover, the mobilization team mobilized two batches of four groups at two training centers, namely Burj Attari and Bahawalpur. These four groups were selected from District Khanewal, Okara, Vehari, Bahawalpur, Lodhran, Multan, Bahawalnagar, Sahiwal, Rahimyar Khan, Pakpattan, Muzaffargarh, Toba Tek Singh and Rajanpur. Currently, a total of 103 AITs are under training in batches 31 & 32 at Burj-Attari while 50 AITs are under training at newly established AI-training center at Bahawalpur.

The follow-up team conducted three follow-up meetings of batch-29 in which their performance and issues related to their work were discussed. Participation rate of AITs in these meetings was 71%. In the current reporting period, 7 induction meetings were held in respective villages of AITs in which follow-up team introduced the AITs to community. Motorbike validation team conducted motorbike evaluation survey of batch-27 and batch-28. A total of 84 AITs surveyed and out of which 41 qualified for award of Motorbike. Motorbike handing-over ceremonies were held on two milk collection centers of Nestle Pakistan. A total of 28 Motorbikes were handed over to qualified AITs and remaining AITs will be handed bikes in the coming quarter.

In this quarter, no survey was carried out by M & E department for AI-component. The below table on performance indicator is taken from last two Quarterly Progress Report. Third column shows the performance of AITs who are in business for about three years and fourth column shows the performance of AITs recently trained.

Table 7 Performance Indicators for Project Trained AITs

| Indicators | Targets | Achievement (Trained in Phase-1) | Achievement (Trained in Phase-2) |
|---|---|---|---|
| Average monthly income of AITs from providing AI services relative to the baseline | Income of at least PKR. 3,000 (US$ 32) per month | PKR. 10,500 | PKR 5,672 |
| Number of villages served by AITs | On average 4 villages per AIT | 6 | 7 |
| Number of insemination procedures performed per AIT/ per month | On average 20 insemination per month per AIT | 35 | 21 |

[2] Source: FAO; EIU The Economist (http://www.economist.com/blogs/dailychart/2011/07/global-livestock-counts)

| Indicators | Targets | Achievement (Trained in Phase-1) | Achievement (Trained in Phase-2) |
|---|---|---|---|
| No. of pregnancy tests performed per AIT per month | On average 20 pregnancy tests done by project trained AITs | 21 | 19 |
| Conception rate of services provided by project trained AITs | Conception rate of 60% | 64%[1] | 56% |
| Percentage of AITs providing their services as insemination technicians | 80 percent of AITs | 89% | 98% |
| Percentage of imported semen used | At least 20% of the total semen's applied/used by an AIT | 28.57% | 15.3% |
| Percentage of AITs attending Follow-up Meetings | At least 70 percent of the AITs attending such meetings | 82% | 98% |
| Number of AITs successfully trained in book-keeping and business management | 100 percent | 100% | 100% |

Note: 1-Calculated from Bike-Validation Survey

All above mentioned indicators show a satisfactory performance of project trained AITs. They are earning, on average, PKR 10,500 per month and performing 35 inseminations and 21 pregnancy test per month. Usage of imported semen is also increasing over the time and 28.57% of the semen applied was imported. The performance of recently trained AITs is also satisfactory. They are earning PKR 5,672 per month with an average of 21artificial inseminations of per month.

## Training and Support for Women Livestock Extension Workers (WLEWs)

Women play a vital role in our society in all fields of life. They help to steer the household economy by actively participating in agriculture and other jobs. However, their participation in dairy and agriculture is not well recognized. The project has made an effort to train the rural young women on basic extension services of animal medication and feeding, and support them to be independent rural entrepreneurs in the dairy sector. It also helped farmers realize the real potential of livestock through better animal health and extension services at the village level. The WLEWs are providing much needed extension services in their neighborhoods.

The project continued its WLEW training and refresher training in Vehari and Bahawalpur. In the current reporting period, the project trained 113 new WLEWs and provided refresher to 233 already trained WLEWs. To mobilize rural women for training, the mobilization team conducted 143 community/corner meetings which were attended by 3,106 surrounding men and women. The selected were trained on training centers established by the project in their nearby vicinity. During the training, field teams organized 72 help camps for WLEWs in which they treated 3, 312 cases under the supervision of their master trainer. The training summary for the reporting period is given below:

Table 8 Target vs Achievement

| | WLEWs Training | | | WLEWs Refresher | | |
|---|---|---|---|---|---|---|
| **Month** | Target | Achievement | Variance | Target | Achievement | Variance |
| April, 2015 | 25 | 17 | (8) | 70 | 85 | 15 |
| May, 2015 | 35 | 47 | 12 | 70 | 72 | 2 |
| June, 2015 | 40 | 49 | 9 | 60 | 76 | 16 |
| **Grand Total** | **100** | **113** | **13** | **200** | **233** | **33** |

There was no quarterly survey conducted in this quarter for WLEWs performance. The result presented in the table below is taken from the last two Quarterly Progress Reports. The third column of this table shows the performance of WLEWs that trained in first three years of the project and the fourth column represents the performance of WLEWs that are recently trained (trained in year-4).

Table 9 WLEW Performance Indicators

| Indicators | Targets | Achievement (Trained in Phase-1) | Achievement (Trained in Phase-2) |
|---|---|---|---|
| Average monthly income of WLEWs from livestock services relative to the baseline | Income of at least PKR. 2,000 per month | PKR. 1,155[1] | 1,032 |
| Average number of cases done by trained WLEWs | On average 30 cases per month per WLEW | 29 | 28 |
| Number of villages served by the WLEWs | On average 1 village per WLEW | 3 | 2 |
| Number of project-trained WLEWs providing services as self-employed extension workers | At least 60 percent of the trained WLEWs providing services | 45% | 97% |
| Number of WLEWs operating / managing project-supported milk collection points in project-assisted communities | At least 20 milk collection points (LOP Target) | | 16 |

| | | | |
|---|---|---|---|
| Number of the WLEWs trained in business practices and book-keeping. | 100 percent of the WLEWs | 100% | 100% |
| 1: Combined income of both Livestock Health Workers (LHWs) and Livestock Business Entrepreneurs (LBEs). | | | |

To work with the rural women community is very difficult as there are many social and cultural constraints for women to work. Under these circumstances, to train rural women and establish them as reliable extension service providers is a real challenge for the project. Given these circumstances, the project-trained WLEWs are on average earning PKR 1,155 per month with 29 cases being dealt per month. Although the earning of WLEWs is not high enough, they are present in rural communities and ready to serve the surrounding farmers. On average, they are covering 3 nearby villages/bastis.

The project is also looking to make liaisons with other initiatives and development bodies who are currently working—or planning to work—for the empowerment of women. This will result in a good learning activity for both the parties since the joint planning of interventions will produce more effective and efficient results. Another opportunity to expand the work of the WLEWs is to introduce them to the beef market and create linkages with market input suppliers. In this way, WLEWs will be able to expand their work and sources of income.

As the issues of input supplies required by WLEWs and social constraints are prompting in, the project is working the idea of **"Cluster-Markets for Poor"**. In cluster, WLEWs will be connected to the farmers, meat exporter, milk processors and actors of value chain and will be earning commission on the services provided. These services will include the buying of milk, identification of animals for meat processors and calf rearing support to farmers.

The project has also strategized in its fourth and fifth year work plan to boost the income of the previously trained WLEWs by providing them refresher/advanced course, hence increasing the knowledge base and skill set. This effort results into an increase in income of WLEWs trained in first phase of the project (July 2011- July 2014). According to our recent survey, these women are earning **PKR 2,457** per month with an average of 28 cases per month. As per our previous quarterly survey which was conducted in January, 2015, the income of WLEWs trained in first phase was **PKR 1,091**. The income stats show a significant impact of refresher course on the earning of WLEWs.

In the current reporting period, the follow-up team provided follow-up to batch-24, batch-25, batch-26, batch-27 and batch-29. To introduce the WLEWs as a reliable extension worker, WLEWs follow-up team conducted 82 induction meetings, in which local farmers were briefed about the rigorous training of WLEWs and her capacity to treat their animals. WLEWs follow-up team conducted 42 monthly meetings in which 280 WLEWs participated and discussed their technical and input supplies issues with follow-up team. Individual visits of follow-up team for consultation of WLEWs were also arranged. Follow-up team visited 213 WLEWs and resolved their work related issues.

Photo by: Dairy Project

## Other life of project targets

Table 10 Life of Project Targets

| Progress Indicators | LOP Target | Progress |
|---|---|---|
| Number of subsidized imported semen provided to farmers | 2014-15: 7,000<br>2015-16: 3,000 | In approval phase |
| Number of new clusters formed | 100 clusters | 91[1] |
| Number of suppliers introduced to clusters | At least 10 suppliers introduced | 10 |
| Number of follow up meeting conducted | 250 scheduled meetings | 294 |
| Number of inter-beneficiary meetings conducted | 100 meetings to be conducted (LOP Target) | 182 |
| Number of Silage shows conducted with average 2 acreage of land covered per show | 2014-15: 80 shows<br>2015-16: 80 shows | 90 shows |
| Number of farmers observed silage shows | On average 100 farmers in a silage show | 52 farmers |

Note: 1- Villages grouped together where a group of extension workers work together along with a deputed cluster head, forms a Cluster.

## Communication, Awareness Campaign and Other Activities:

The Communications department provided support in the following activities during the current reporting period:

- Provided support in the production and designing of employee cards and business ID cards for PMU, Vehari, Burj Attari, Sukheki and Bahawalpur, certificates (One-Day Farmer), backdrop, standees and table cards for Farm Managers' Graduation Ceremony, AIT sign boards, file folders, writing pads, AIT handbills and branded giveaways (keychains, mugs, coasters, USBs table decorators, pen holders etc.).

- As an integral part of the Dairy Project's Mass Awareness Component, the Communications Team disseminated its newsletter, Dairy Project Portal (Volume III, Issue 2), and the Corporate Documentary on a wide scale. In this respect, 413 copies of the newsletter and 52 DVDs were distributed among public and private stakeholders and key project staff, reaching out to 42 organizations. Furthermore, the newsletter and the documentary were shared on the Dairy Project website and Facebook page, as well as with USAID DOCS.

- On October 07, 2015, a delegation from Nestlé Corporate Affairs Department visited the USAID – DRDF Dairy Project. The objective of the visit was to provide updates on the Dairy Project's activities to the delegation. Mr. Jack Moser, Chief of Party, gave a brief overview of the project's interventions, targets, and accomplishments, followed by a detailed presentation on Field Operations, Communications, Finance, Procurement, Monitoring & Evaluation, and Safety, Health and Environment departments. Communications Department worked on the Project's presentation. Project giveaways were distributed among the guests. They were also shown the Dairy Project's corporate documentary for maximum project promotion.

- Communications Department has provided its assistance in the development of the *Project Presentation* designed by an external consultant. The purpose of this presentation is to highlight the Dairy Project's background, five technical components, objectives, impact, role of all the departments, achievements to date etc.

- The Communications Team provided support in the compiling, composing and editing of Dairy Project's Annual Implementation Plan (AIP) Year 5. Moreover, the team assisted in the editing of the Annual Progress Report IV (APR).

- The team designed a Progeny Test framework to incorporate into the AI training curriculum in view of the new Livestock Breeding Act.

- Based on the successful roll-out of the first round of Street Shows with Mobile Float Announcements activity, its second round was carried out in the months of December-January. 31 shows were conducted in project's target areas of Multan, Vehari, Bahawalpur and the surrounding suburbs with a turnout of more than 14,000 rural men and women.

- The 2016 Dairy Project diary & calendar was designed and printed in the month of December 2015. The theme and content for the dairy was finalized and approved in November, while the photoshoot took place in December The Diary will focus on Dairy Project interventions and commitment in terms of sustainable dairy model, economic profitability, cluster formation, social and economic equity for the dairy farming community, which are in line with the USAID's Development Objectives (DOs), and the Government of Pakistan's focus on the dairy value chain.. The dissemination will take place in the first two weeks of January, 2016.

- On December 04, 2015, the USAID-DRDF Dairy Project hosted a certificate distribution ceremony for the last batch of farm managers who undertook the one-month long farm management training program at Faletti's Hotel, Lahore. The purpose of the event was to congratulate farm managers on the completion of the one-month course, as well as to motivate them to continue contributing to the development of Pakistan's dairy and livestock sector. The Communications Team provided support in the organizing the event: backdrop, MC Script, table cards, standees and other marketing material were designed and arranged.

- Pre-production activities such as script abstract, storyboard etc. for the Training video modules were initiated. Presenter selection and script abstract took place in December, Filming and post-production activities will start in the second week of January. These video modules will cover De-worming & Vaccination and Mastitis Control topics. The purpose of the video module(s) is to create a presentation/walkthrough that takes the audience through each step of best dairy farm practice/process in detail and explain its significance.

- With the help of Facebook Promotional Campaign, the Dairy Project was able to reach the highest audience followings (so far) of more than ten thousand likes (10,527 and growing). Based on the successful rollout we will continue this activity to further highlight the achievements and impacts of the Dairy Project.

- The content compilation for the Newspaper Supplement began in December, 2015. The full-page newspaper colored supplement will help promote the USAID-DRDF Dairy Project objectives, interventions, activities, and impact for larger audiences. The final layout will be shared with Project Management and USAID DOCS for review and approval, before it is released in the national newspapers by end of January, 2016.

Photo by: Dairy Project

## Issues, Lessons Learnt and Way Forward

# Gaining From Experience

Table 11. Admistrative Issues/Challenges and Remedies

| Issues/Challenges | Remedial Measures |
|---|---|
| **AI-Training** | |
| It was challenging to bring trainees at animal market, Lahore due to legal matters and approvals from Livestock deptt. Team could not get any positive response from Animal Market 'higher management for work permit at animal market. | AI-Team proceeds to Animal Market, Sheikhupura to get permission from management so that trainees could get exposure to deal with farmers and check animals in field. Matter is under process. |
| For 3 months field training, trainees could not get require no. of AI cases at assigned Dairy Farms as per Govt Livestock policy. | AI- team linked trainees with private practitioners/Govt Vet hospitals so that they could complete their targeted assignment within time line and follow up their performance on daily basis to check records. |
| **Farm Upgradation** | |
| Unskilled labor was big issue to ensure timely and quality working during farm construction. | Vendor gave orientation to labor to improve work quality. |
| Team faced challenge of non-cooperative behavior of selected farmers at some places. | Team focused on selection of farmer to resolve concern. It is suggested to add a guarenteer to minimize such issues. |
| **Farmer Training** | |
| Some of the upgraded farm are located at the outer boundary of village and pedestrian access to these farms is an issue coupled by the availability of room for seating of trainees | The project arranged vehicles farmers' transportation to these farms and community came forward to provide space/room for training. |
| Farmers were busy in wheat sowing in morning time. Availabilty of farmers for one-day training and other trainings was a big challenge | Team changed/managed the training time with the consent of farmers for one day training. |
| Teams faced problems in handling the beneficiary registration software as there were delays in data transfer an updates. | The issues in data processing were discussed with developer and duly resolved |
| **WLEW-Training** | |
| It was challenge to organize refresher training of WLEWs, focusing on inter villages distance | Keeping in view WLEWs working status and availability in area, team redesigned clusters to organize WLEW refresher training for smooth working. |
| Due the carpeted vaccine campaign launched by the Livestock Department Punjab, limited supply of vaccines is available in the market for WLEWs and less opportunity for vaccination services | Teams linked the trained WLEWs with Livestock Department to use the services of WLEWs in vaccination programme |
| WLEWs faced issue of Urea Molasses Blocks availability in their nearby market | The project is trying to link the WLEWs with suppliers to help them in timely supply of UM-Blocks. |

| Issues/Challenges | Remedial Measures |
|---|---|
| It was difficult for WLEWs to manage Vanda selling at reasonable price in presence of milk processing companies who were facilitating farmers with provision of Vanda with low price in the same village. | Dairy Project team discuss the matter with District management of milk processing companies in related areas about review vanda price/ link their farmers to WLEWs in the same villages. They agreed to link their farmers with WLEWs for Vanda purchase in most of areas. |
| It was a big challenge to select candidates for WLEW training from Bahawalpur in cotton picking season. | Team adjusted meeting time with candidates and their families in villages for selection of WLEW |

# Annexures:

## Annex 1: Project Overview

The Dairy Project is a joint effort of the Dairy and Rural Development Foundation (DRDF) and the United States Agency for International Development (USAID) to foster sustainable increase in dairy and livestock productivity through adoption of best dairy farming practices, breed improvement, availability of timely extension services, and promotion of livestock businesses. The Dairy Project is being implemented in all four provinces, with a major focus on Punjab with a time frame of five years (July 2011- October 2016). The project contributes to the USAID's strategic objective of creating job opportunities and increasing income. The project objectives are aligned with Pakistan's development agenda, and its goal and objectives reflect national and regional priorities.

### Farm up gradation and Bio gas plants

The first objective of the farm upgradation is to provide an on-the-ground model for small dairy holders at village level, where they could observe the best dairy farming practices that are being implemented. Secondly, since access to the large mega farms for all small dairy farmers in a village is not possible, the universal training coverage is achieved by up-grading these farms and providing training access for the village and the surrounding area. Thirdly, these upgraded model farms serve as a meeting point and input supply hub for project-trained beneficiaries. The project aims to upgrade 100 farms with herd size of 5-25 dairy animals over the project life.

Animal nutrition is an essential part of animal health and milk productivity, and fodder is one of the important nutrients for these animals. Cost of production of fodder is a major concern for the farmer. The objective of establishing bio-gas plants is to shift irrigation tube-wells running on fuel/electricity to manure bio-gas units. The slurry produced from these bio gas units will also improve the fertility of the land which is another benefit accrued to the farmer. The project aims to develop such 5 bio-gas units during its extension phase.

### Training and Support for Dairy Farmers

The primary objective of providing training and support to dairy farmers is to improve prevalent dairy farming practices for improving livestock productivity and enhancing incomes of rural households assisted by the Dairy Project. The project aims to train 48,600 progressive farmers and 500 commercial farmers and farm managers. From these, 800 farmers from Khyber Pakhtunkhwa, Sindh and Baluchistan are encouraged to attend the project's training courses in Punjab. These trainings cover several topics, including improved feeding and animal nutrition, importance of improved breeds, basic animal health, and farm equipment and shed management. Training for farm managers include separate components on basic book-keeping and business skills. Knowledge of basic business know-how adds to the skills of farm managers. Consequently, all trained farmers have a better understanding of the milk value chain and they know how to profitably create linkages within it.

Classroom trainings are being conducted at model dairy farms, where modern dairy farm-management techniques are implemented. After successful completion of the training course, participants are provided with basic equipment kit that helps them to put into practice the newly learnt farming practices. Trained farmers are visited frequently for support and follow up.

### Training and Support for Artificial Insemination Technicians (AITs)

The objective of AI training is to improve the provision of AI services to foster good quality breeds that will improve livestock productivity and enhance income of rural youth. Under this component, 3,000 young individuals from rural Punjab, from which 300 from Khyber Pakhtunkhwa, Sindh and Baluchistan will be supported in attending the project's AI training courses in Punjab. AITs receive five weeks of training with two months follow up support. Trainings include a mix of theory, demonstration and practical exercises related to insemination, safe handling and maintenance of insemination guns, liquid nitrogen cylinders for transporting semen and other equipment. Classroom trainings take place

at AIT Centers, established by the Dairy Project, and the Government of Punjab's Vocational Training Institute (PVTI).

Each AIT receives initial support to establish him as an entrepreneur. This support includes an AIT kit (including Nitrogen Cylinders, Semen, Semen Straws, and basic AI related equipment). A motorbike is also provided upon meeting certain performance criteria.

## Training and Support for Women Livestock Extension Workers (WLEWs)

The objective of this component is to increase the use and availability of livestock services provided by WLEWs for improving livestock productivity and enhancing income of rural females. Under this component, 6,000 WLEWs will be trained out of which 1,000 will receive refresher and advance training course. WLEWs receive one-month training on basic animal health management, basic preventive animal health measure, identification of the most common diseases, immunization, basic treatment, animal nutrition and animal hygiene. The curriculum is updated in collaboration with University of Veterinary and Animal Sciences (UVAS). WLEWs are also trained in feed supply and milk collection to give them the expertise to further grow their businesses. They also receive training in book-keeping and business skills as well as how to develop linkages with service (including financial) and input suppliers along the dairy value chain.

Extension worker trainings are conducted in village clusters, so that women can attend training near their homes. A training camp is set up on a temporary basis at each site. The project arranges for transport to and from the site. All master trainers are women veterinary graduates. The program is certified by the University of Veterinary and Animal Sciences (UVAS).

Upon completion of the course, WLEWs selected for animal nursing are given a veterinary kit, while WLEWs doing concentrate business are supported by a stock of animal feed. The program also provides workers with basic mobile phones to enable easy communication with clients and input suppliers.

## Awareness Campaign

The overall objective of the Dairy Project's mass awareness campaign is to increase awareness about the best dairy farming practices with a focus to improve livestock productivity in Pakistan. Under this component, TV, radio and print infomercials, on subjects such as de-worming, vaccination, mastitis control, breeding, and feeding practices, are being developed. The awareness campaigns through TV, radio and print media are to be aired in about 2,000 villages' across Punjab and other provinces. Farmer days and silage-making days are organized to motivate farmers to adopt improved animal husbandry practices.

# Annex 2: Environmental Compliance

## INTRODUCTION

The Safety, Health and Environmental (SHE) team of the Dairy Project monitors operational processes to ensure compliance with health, safety and environmental requirements. Various guidelines have been developed to ensure safety health and environmental compliance during trainings and other project activities. is the guideline focuses on the adoption of best management practices, health and safety measures related to semen, liquid nitrogen gas and organs handling, proper disposal of waste such as semen straws, sheaths and animal organs, syringe handling and disposal, compliance to product specifications proper disposal of waste such as empty medicine bottles and syringes as well as bio-security measures at upgraded model farms.

## REPORT ON COMPLIANCE

This report covers the period October - December, 2015. The Environmental team used methodology of physical, inspection of sites, visit to class rooms and interviews of trainees to compile this report. Component-wise findings of this report are given in subsequent sections.

### *Component 1: Farmer Training*

There is one module on environmental awareness in curriculum of one-day, seven-day and month farmer training which includes bio-security measures at the farm, milk hygiene, milk quality test, restraining or crushing for personal safety, appropriate feed storage to ensure the maintenance of the concentrate feed quality and general hygiene at the farm. In addition to this, knowledge was imparted to the beneficiaries about the quarantine period for new animals at the farm.

Module for seven-day and one-month training is more comprehensive as compared to one-day training; it contains safety measures like treatment stall or restraining methods for pregnancy examination, vaccination, medication, deworming, and artificial insemination. Teat sanitization, organoleptic and surf test are well described to check the milk quality so that milk from the infected animal could be separated. Safety measures like dust mask usage, safety guard importance and maintenance of the silage machine for silage shows are being taught to the trainees.

Environmental officers carried out visits at the training center to observe/monitor the training centres and help campus on environmental compliance. Compliance with standards was observed on most of the training centers; however, there were few training centers which had some issues. The details of these issues are given below:

| Issue | Number of Observations | Remarks |
|---|---|---|
| Lime tray and surf test kit was absent at training farms | 5 | On environmental team observation, Zonal Management took very serious action on critical bio-security issue and provided these farm with required kits immediately. |
| Water troughs were contaminated with Algae. | 2 | Zonal Management instructed field staff to manage the issue. |
| Sanitation condition at farm was not good | 4 | Farmer was explained the significance of cleanliness at the farms; however improvement required resources and time |
| Wanda storage | 1 | Racking technique has been suggested to the farmers by SHE officers. |

| Issue | Number of Observations | Remarks |
|---|---|---|
| Drinking water for trainees is not fit with respect to quality | 2 | Zonal Management considered the suggestion of Environment department to provide the clean drinking water to trainee in packed bottles. |
| Feeding table was used as training class room for one day farmers. | 1 | This practice can deteriorate the quality of feed used by animals and we should also guide farmers to even not move on feeding table without any reason |

*Upgraded Model Farm:*

Basic environmental mitigations are adopted at upgraded farms so that trainees can observe the demonstrations and become aware about environmental best practices. Trainees can visualize and better understand the practices and implement these value-adding practices at their farms as well.

Baseline condition at the proposed upgraded farm at the start was not very much appreciable however, with Dairy Project intervention and training, quality of hygiene, bio-security measures, milk hygiene, disposal of waste, ,health and safety measures at the upgraded farm improved a lot. Issues are shared on regular basis with field staff in case of non-compliance and well addressed in due course of time which helps improve the compliance.

During the site selection for upgraded model farms, certain criteria were established to avoid frequent ponding as ponding causes diseases. Further, a year round supply of clean drinking water and construction of water channels for liquid manure handling in case of shed construction was ensured. The following issues were observed during this reporting period:

| Issue | Number of Observations | Remarks |
|---|---|---|
| Cutting of trees was observed at site. | 11 | Plantation activity has been started but the pace of activity is slow. |
| Electrical live wire was present without insulation under the roof of partially constructed steel shed. | **1** | Field management has been made aware of the serious threats posed by this issue and resolution of the issue is required by the field team. |
| Electrical wire was passing at very low height and very close to passing by humans head at an up-grade farm | 1 | Awaiting response from field teams and farmers |

| Issue | Number of Observations | Remarks |
|---|---|---|
| Drinking Water quality for animals is biologically contaminated. | 8 | The water source of one farm has been replaced. While the other farmers are working on it |

*Component 2: Artificial Insemination Technicians' Training*

AI-training curriculum has one module on safety measures of handling LNG, semen and allied apparatus which is well taught and demonstrated in the class. Also the project team takes the following measures to ensure the safety and environmental compliance on its training sites and practical areas:

All AI trainees wear Dangri (overalls), gum boots and gloves during practical training on live animals to minimize the chances of disease transfer to human beings.

- Organs are stored inside refrigerator in enclosed container to inhibit the bacterial growth so that pathogens are not spread in the environment after usage.
- Either crush or restraining is used to control the animals during live animal practice to prevent the injuries during insemination practice.
- Sheaths and contaminated polythene gloves are kept covered in dust bin at site till further disposal so that pathogens are not spread in the environment.
- Organs are disposed of inside limed pit for biodegradation and safe disposal. Lime is utilized for the disinfection purpose at Bahawalpur site however, to ease the process and to improve the efficiency of the process; heat treatment prior to the ultimate disposal in the land has been introduced at Burj Attari site for organs disposal. After heat treatment, organs are converted into municipal solid waste and so could be easily disposed of along with city waste management system.

| Issues Observed | Mitigation Measures Proposed |
|---|---|
| Restraining of Animal is not done properly | This is a serious safety hazard and restraining should be done before practicing on animals. |
| Same Air mask is used again and again | Everyone should use his own mask and it should be changed with new one after regular intervals |

### *Component 3: Women Livestock Extension Worker (WLEW) Training*

WLEW training takes place locally (village level) at established training centers in two districts namely, Bahawalpur and Vehari, SHE officer conducts environmental awareness sessions for each batch of WLEWs, mainly covering the topic(s) of handling medicines, concentrate feed storage and appropriate disposal methods of syringes and empty medicine bottles. Further the project takes the following measures to ensure the environmental compliance:

- Medicines are protected from the sunlight during outdoor sessions by use of kit bag. Moreover, the expiry date is checked before use of medicines at both sites which eliminates the chances of expired medicine usage.
- SHE officers perform quarterly stock checks to ensure that material and medicines are stored appropriately and no expired medicine is in the store
- Recapping needle enhances the chances of needle prick injuries as well as zoonotic diseases occurring as a result. Hands are washed with soap after conducting surgery of an animal.
- Restraining methods have also been taught to the WLEW's so that they could prevent any possible injury from the animals during treatment.
- Needle cutters were available on both sites for immediate disposal of needles after injection so that chances of needle prick injuries are minimized.

There were some issues observed in this quarter relating to the compliance which need attention from management. The issues were discussed with zonal management for their redress::

| Issue | Mitigation Measure |
|---|---|
| WLEWs were touching, directly with hand, the needle of syringe after injecting it to an animal. | This practice can transfer zoonotic diseases to WLEW's. |
| Drinking water for WLEWs is not fit for drinking | Drinking water with good taste should be provided to beneficiaries |
| B.D syringe and drenching gun was washed in the same used water again and again. | Needle has to be changed for each new animal; the issue has been discussed previously as well. |
| Instruction about one time use of needle but it is has not been practically adopted. | Needle has to be changed for each new animal treatment |
| There was no arrangement of washing hands after treatment of animals at field camp | This practice can infect WLEW's through cross contamination. Hand washing facility should be available at site with anti-bacterial soap. |
| Restraining the animals practice was in place for treatment | This practice leads to safety hazard for WLEWs |

## WAY-FORWARD AND CONCLUSION:

By and large, Dairy Project is observing compliance in most of its activities; the project has minimal environmental adverse impact. However, there were some instances, where improvement was required. In such cases, necessary directions have been given to Operations Department for remedial measures.

The Dairy Project believes in continual improvement and efforts will be made to improve the environmental compliance.

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# SUCCESS STORY

## Improving Income of Rural Women

**USAID – DRDF Dairy Project trains rural woman with new skills and techniques to provide timely basic livestock health and extension services.**

***"I participated in the USAID – DRDF Dairy Project training course and I am now able to help nurture the dairy animals of my village. In the past three months, my average monthly profit has been PKR 5,167 (USD 50)."***

Nazia Majeed, Dairy Project Trained Women Livestock Extension Worker, 323EB, district Vehari Tehsil Burewala.

Resident of 323EB, Tehsil Burewala, District Vehari, Nazia Majeed received the refresher course trainings from USAID-DRDF Dairy Project under its Women Livestock Extension Workers (WLEWs).

She heard about the Dairy Project's refresher trainings at a community meeting at her village. Subsequently, she appeared in an interview and got selected for the course.

The USAID – DRDF Dairy Project team assisted Nazia in reinforcing her earlier WLEW training, and learning animal disease prevention and basic livestock handling techniques, including measures relating to timely and scheduled provision of vaccinations.

Nazia's new knowledge has increased her monthly income, "I participated in the USAID-DRDF Dairy Project training course and I am now able to help nurture the dairy animals of my village. In the past three months, my average monthly profit has been PKR 5,167 (USD 50)."

The USAID – DRDF Dairy Project team aims to continue providing support and guidance to women by equipping them with relevant knowledge, skills and tools so that they are able to provide much needed livestock extension support in their villages.

Nazia is extremely thankful to USAID – DRDF Dairy Project team for helping her contribute towards her family's total income. She is glad she enrolled herself in the project's Women Livestock Extension Workers (WLEW) training program for unemployed and underprivileged rural women across Punjab. "My community is satisfied and acknowledges the timely animal health care services I provide. My family is also very happy with this advancement and in the future, I aim to expand my Vanda distribution network," remarks Nazia.

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# SUCCESS STORY

## Bringing Hope to Traditional Dairy Farmer

**USAID-DRDF Dairy Project helps traditional farmer to adopt modern dairy farm practices and techniques for improved livelihoods.**

***"The Dairy Project encouraged me to adopt the 3-1-7 strategy, which entails 305 days of continuous milking, one new calf per year and 70 per cent lactating animals per dairy herd, per farm. I want to continue these practices to ensure my animals are healthy and more productive. I often guide my village community about the best practices, which they appreciate and as a result want to participate in the trainings as well," remarks Azmat.***

Azmat Bashir is a progressive dairy farmer who belongs to a traditional system of livestock holding. He lives in Chak 341/WB, Tehsil Dunyapur, District Lodharan, with his wife and two children. He heard about USAID-DRDF Dairy Project's trainings for dairy farmers through a loud speaker announcement in village mosque, followed by project team visit at his village.

"Belonging to a family involved in traditional methods of agriculture, I was never exposed to modern dairy farm practices and techniques, such as, deworming, vaccination, balanced diet, calf rearing and silage feeding. Through the USAID-DRDF Dairy Project's dairy farmer training, I learnt to improve my dairy business through adoption of best dairy farm practices," says Azmat.

Azmat's income was stagnant and it was becoming difficult for him to fulfill the basic needs of his family. He did not see any hope of increasing income until he learnt the best dairy practices for his farm. It has helped him increase the milk yield by 2 liters per animal. Dairy Project's training has given him a steady source of income. Now he is able to provide better health and educational facilities to his family.

"In addition to this four-day training, I gained knowledge about farm upgradation through a newspaper advertisement. I applied for my consideration in this component and after a few days the Dairy Project's team visited my farm and short-listed me for the interview. The interview committee asked questions about my set up as well as future plans and finally I got selected for this opportunity where the Dairy Project provided me with 50 percent cost-share support to upgrade my local farm, into a model, dairy and training farm", says Azmat.

USAID-DRDF Dairy Project is upgrading local farms of selected dairy farmers to model farms. The upgraded farm will facilitate farmers in implementing best dairy farming practices, and these farms will serve as a model for neighboring dairy farmers. As of June 2015, the project has trained over 22,000 dairy farmers—75 per cent of whom have adopted at least three best farming practices leading to 17 per cent increase in the average milk yield.

"The Dairy Project encouraged me to adopt the 3-1-7 strategy, which entails 305 days of continuous milking, one new calf per year and 70 per cent lactating animals per dairy herd, per farm. I want to continue these practices to ensure my animals are healthy and more productive. I often guide my village community about the best practices, which they appreciate and as a result want to participate in the trainings as well," remarks Azmat.

Azmat has moved from a traditional farmer, who was barely able to make ends meet, to one with a secure future with the help of USAID-DRDF Dairy Project's trainings. In future, he plans to further upgrade his farm and purchase better breeds for improving his animals for increased income.

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# SUCCESS STORY

## Creating Opportunities for the Rural Youth

***The Dairy Project seeks to create income opportunities for the rural educated youth, and increase the milk production for dairy farmers through better breeding and access to insemination services.***

***"Due to the Artificial Insemination services I provide, I am able to afford better health and education facilities for my family."***

Umer Hayat, Artificial Insemination Technician, Basti Faridabad, Ada Kot Muzaffar, tehsil Melsi, district Vehari

Umer Hayat, 26, is an Artificial Insemination Technician (AIT) living in a small village in tehsil Melsi, district Vehari. Prior to his AI training, Umer worked as a salesman at a local veterinary store near his village. He earned PKR 5,000 (USD 50) per month and, as a result, barely earned enough to take care of his family's needs. In order to make ends meet, Umer needed an alternate source of income.

In 2013, Umer learnt about USAID's Dairy Project after meeting the project's mobilization team. Mr. Ali Nisar, a Dairy Project social mobilizer, convinced Umer to submit an application for enrollment in the AI training program.

The Dairy Project seeks to improve the productivity and livelihoods of rural communities through capacity building, breed improvement, and provision of quality and timely extension services in livestock and dairy development. The Artificial Insemination training component of the Dairy Project seeks to create income opportunities for the educated youth, and increase milk production for dairy farmers through better breeding and access to insemination services.

The Artificial Insemination training held in Burj Attari, district Sheikhupura, provided Umer with theoretical knowledge and practical skills required to inseminate cows, and safely handle semen, liquid nitrogen cylinders and other equipment.

In the last three months alone, Umer has inseminated about 81 animals with a conception rate of 64%. He earns around PKR 9,000 (USD 90) per month from his AI work, and also works part-time earning PKR 2,000 (USD 20). He now spends PKR 2,800 (USD 28) on his children's health and education. Umer has also bought a cow and is working hard to improve the standard of living for his family.

"Due to the Artificial Insemination services I provide, I am able to afford better health and education facilities for my family. My children go to school without worrying about school fee. I am grateful to USAID's Dairy Project for providing me with such an amazing opportunity."

Since timely insemination services were not available in nearby villages, even his village community is appreciative of AI services available within close proximity. Umer plans to continue providing quality insemination services to the surrounding village communities.